DEFENSE INFORMATION SYSTEMS AGENCY
JOINT INTEROPERABILITY TEST COMMAND
P.O. BOX 12798
FORT HUACHUCA, ARIZONA 85670-2798

IN REPLY REFER TO: Battle Space Communications Portfolio (JTE) 31 March 2008

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Extension of the Special Interoperability Test Certification of the K&R Custom Software Inc. Telecommunications Management System (TMS) with Software Release 5.2

References: (a) DoD Directive 4630.5, "Interoperability and Supportability of Information Technology (IT) and National Security Systems (NSS)," 5 May 2004
(b) CJCSI 6212.01D, "Interoperability and Supportability of Information Technology and National Security Systems," 8 March 2006

1. References (a) and (b) establish the Defense Information Systems Agency, Joint Interoperability Test Command (JITC), as the responsible organization for interoperability test certification. Additional references are provided in the enclosure.

2. The K&R Custom Software Inc. TMS with Software Release 5.2 is hereinafter referred to as the System Under Test (SUT). The SUT meets its interface requirements and all required functional capabilities and is certified for joint use within the Defense Switched Network (DSN). The SUT met the interface and functional requirements for a Customer Premise Equipment device as set forth in appendix 7 of reference (c). The SUT is certified specifically with switching systems listed in table 1 with the software releases on the DSN Approved Products List (APL). Testing was conducted using test procedures derived from reference (d). The Internet Protocol version 6 requirements set forth in references (c) and (e) were satisfied by the vendor's Letters of Compliance (LoC). This certification expires upon changes that affect interoperability, but no later than three years from the date of the original memorandum (3 January 2007).

Table 1. SUT Certified Switching System Configurations

Switch Name (See note 1.)	NM Data Elements	Interfaces
Nortel MSL-100 **Nortel CS2100**	- CDR - Switch Interface - Alarm Monitoring - Traffic and Performance	- EIA-232 Synchronous ITU-T X.25 (CDR Only) - EIA-232 Asynchronous
Nortel DSN CS1000M Single Group, DSN CS1000M Multi-Group	- CDR - Switch Interface - Alarm Monitoring - Traffic and Performance	- EIA-232 Serial Asynchronous
DSN M1 Option 61C, DSN M1 Option 81C	- CDR - Switch Interface - Alarm Monitoring - Traffic and Performance	- EIA-232 Serial Asynchronous

Table 1. SUT Certified Switching System Configurations (continued)

Switch Name (See note 1.)	NM Data Elements	Interfaces
Nortel Succession DSN 1000M Single-Group, Half-Group, and Multi-Group	- CDR - Switch Interface - Alarm Monitoring - Traffic and Performance	- EIA-232 Serial Asynchronous
Nortel Succession DSN 1000M Cabinet, DSN 1000M Chassis, DSN 1000M	- CDR - Switch Interface - Alarm Monitoring - Traffic and Performance	- EIA-232 Serial Asynchronous
Nortel Succession DSN Options 11C, 61C, and 81C	- CDR - Switch Interface - Alarm Monitoring - Traffic and Performance	- EIA-232 Serial Asynchronous
Nortel M1Options 11C, 61C, and 81C	- CDR - Switch Interface - Alarm Monitoring - Traffic and Performance	- EIA-232 Serial Asynchronous
Avaya S8700	- CDR only	- IEEE 802.3 Ethernet[2]
Avaya S8700, S8710, S8720	- CDR only	- IEEE 802.3 Ethernet[2]
Lucent 5ESS	- CDR - Alarm Monitoring - Traffic and Performance	- EIA-232 Serial Asynchronous

LEGEND:

802.3 - Standard for carrier sense multiple access with collision detection at 10 Mbps
5ESS - Class 5 Electronic Switching System
CDR - Call Detail Records
CS - Communications Server
DCE - Data Circuit-terminating Equipment
DSN - Defense Switched Network
DTE - Data Terminal Equipment
EIA - Electronic Industries Alliance
EIA-232 - Standard for defining the mechanical and electrical characteristics for connecting DTE and DCE data communications devices
GSCR - Generic Switching Center Requirements
IEEE - Institute of Electrical and Electronics Engineers
IPv4 - Internet Protocol version 4
IPv6 - Internet Protocol version 6
ITU-T - International Telecommunication Union – Telecommunication Standardization Sector
JITC - Joint Interoperability Test Command
LoC - Letters of Compliance
Mbps - Megabits per second
MSL - Meridian Switching Load
NM - Network Management
SUT - System Under Test
VoIP - Voice Internet Protocol
X.25 - Interface between DTE and DCE for terminals operating in the packet mode and connected to public data networks by dedicated circuit

NOTES:

1 Those switching systems bolded and underlined were tested specifically with the SUT by JITC. The other switching systems were not tested with the SUT; however, these systems were previously tested and certified by JITC with the same serial interfaces and JITC analysis determined them to be functionally identical for interoperability certification purposes and they are also certified with the SUT.

2 An IPv6 capable system or product, as defined in the GSCR, paragraph 1.7, shall be capable of receiving, processing, and forwarding IPv6 packets and/or interfacing with other systems and protocols in a manner similar to that of IPv4. IPv6 capability is currently satisfied by a vendor LoC signed by the Vice President of the company. The vendor stated, in writing, compliance to the following criteria by 30 June 2008:
(a) Conformant with IPv6 standards profile contained in the Department of Defense Information Technology Standards Registry (DISR).
(b) Maintaining interoperability in heterogeneous environments and with IPv4.
(c) Commitment to upgrade as the IPv6 standard evolves.
(d) Availability of contractor/vendor IPv6 technical support.

3. The extension of this certification is based upon a desktop review. The original certification is based on interoperability testing and review of the vendor's LoC. Interoperability testing was conducted by JITC at the Global Information Grid Network Test Facility, Fort Huachuca, Arizona, from 16 through 25 October 2006 and documented in reference (f). Review of the vendor's LoC was completed on 7 December 2006. After the original certification was signed, the vendor submitted a request to include all DSN APL software releases for the switches specified in table 1 instead of the specific releases listed in reference (f). The desktop review was completed on 6 March 2008.

4. The Functional Requirements used to evaluate the interoperability of the SUT and the interoperability statuses are indicated in table 2.

Table 2. SUT Functional Requirements and Interoperability Status

Interface	Critical	Certified	Functional Requirements	Met	GSCR Paragraph
Serial EIA-232	No[1]	Yes	In accordance with EIA-232 (C)	Met	A.7.5
			Configuration Management (C)	Met	
			Fault management (C)	Met	
			Performance management (C)	Met	
			Call Detail Records management (C)	Met	
IEEE 802.3 Ethernet[2]	No[1]	Yes	Call Detail Records management (C)	Met	A.7.5
	Yes	See note 3.	Security (R)	See note 3.	A7.6.5

LEGEND:

802.3	- Standard for carrier sense multiple access with collision detection at 10 Mbps	IEEE	- Institute of Electrical and Electronics Engineers
A	- Appendix	IPv4	- Internet Protocol version 4
C	- Conditional	IPv6	- Internet Protocol version 6
DISA	- Defense Information Systems Agency	LoC	- Letters of Compliance
EIA	- Electronic Industries Alliance	Mbps	- Megabits per second
EIA-232	- Standard for defining the mechanical and electrical characteristics for connecting Data Terminal Equipment and Data Circuit-terminating Equipment data communications devices	PCM-24	- Pulse Code Modulation - 24 Channels
		PCM-30	- Pulse Code Modulation - 30 Channels
		R	- Required
GSCR	- Generic Switching Center Requirements	SUT	- System Under Test

NOTES:

1 The SUT interoperability requirement can be met with any of the following interfaces: Ethernet, analog, digital, serial, PCM-24, or PCM-30.

2 An IPv6 capable system or product, as defined in the GSCR, paragraph 1.7, shall be capable of receiving, processing, and forwarding IPv6 packets and/or interfacing with other systems and protocols in a manner similar to that of IPv4. IPv6 capability is currently satisfied by a vendor LoC signed by the Vice President of the company. The vendor stated, in writing, compliance to the following criteria:
(a) Conformant with IPv6 standards profile contained in the Department of Defense Information Technology Standards Registry (DISR).
(b) Maintaining interoperability in heterogeneous environments and with IPv4.
(c) Commitment to upgrade as the IPv6 standard evolves.
(d) Availability of contractor/vendor IPv6 technical support.

3 Security is tested by DISA-led Information Assurance test teams and published in a separate report.

5. JITC distributes interoperability information via the JITC Electronic Report Distribution (ERD) system, which uses Unclassified-But-Sensitive Internet Protocol Router Network (NIPRNet) e-mail. More comprehensive interoperability status information is available via the JITC System Tracking Program (STP). The STP is accessible by .mil/.gov users on the NIPRNet at https://stp.fhu.disa.mil. Test reports, lessons learned, and related testing documents and references are on the JITC Joint Interoperability Tool (JIT) at http://jit.fhu.disa.mil (NIPRNet), or http://199.208.204.125 (SIPRNet). Information related to DSN testing is on the Telecom Switched Services Interoperability (TSSI) website at http://jitc.fhu.disa.mil/tssi.

6. The JITC point of contact is Mike Napier, DSN 879-6787, commercial (520) 538-6787, FAX DSN 879-4347, or e-mail to michael.napier@disa.mil. The tracking number for the SUT is 0527901.

FOR THE COMMANDER:

Enclosure a/s

for J. T. Schlette

RICHARD A. MEADOR
Chief
Battlespace Communications Portfolio

JITC Memo, JTE, Extension of the Special Interoperability Test Certification of the K&R Custom Software Inc. Telecommunications Management System (TMS) with Software Release 5.2

Distribution:
Joint Staff J6I, Room 1E596, Pentagon, Washington, DC 20318-6000
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Defense Information Systems Agency, Net-Centricity Requirements and Assessment Branch, ATTN: GE333, Room 244, P.O. Box 4502, Falls Church, VA 22204-4502
Office of Chief of Naval Operations (N71CC2), CNO N6/N7, 2000 Navy Pentagon, Washington, DC 20350
Headquarters U.S. Air Force, AF/XICF, 1800 Pentagon, Washington, DC 20330-1800
Department of the Army, Office of the Secretary of the Army, CIO/G6, ATTN: SAIS-IOQ, 107 Army Pentagon, Washington, DC 20310-0107
U.S. Marine Corps (C4ISR), MARCORSYSCOM, 2200 Lester St., Quantico, VA 22134-5010
DOT&E, Net-Centric Systems and Naval Warfare, 1700 Defense Pentagon, Washington, DC 20301-1700
U.S. Coast Guard, CG-64, 2100 2nd St. SW, Washington, DC 20593
Defense Intelligence Agency, 2000 MacDill Blvd., Bldg 6000, Bolling AFB, Washington, DC 20340-3342
National Security Agency, ATTN: DT, Suite 6496, 9800 Savage Road, Fort Meade, MD 20755-6496
Director, Defense Information Systems Agency, ATTN: GS235, Room 5W24-8A, P.O. Box 4502, Falls Church, VA 22204-4502
Office of Assistant Secretary of Defense (NII)/DoD CIO, Crystal Mall 3, 7th Floor, Suite 7000, 1851 S. Bell St., Arlington, VA 22202
Office of Under Secretary of Defense, AT&L, Room 3E144, 3070 Defense Pentagon, Washington, DC 20301
U.S. Joint Forces Command, J68, Net-Centric Integration, Communications, and Capabilities Division, 1562 Mitscher Ave., Norfolk, VA 23551-2488
Defense Information Systems Agency (DISA), ATTN: GS23 (Mr. McLaughlin), Room 5W23, 5275 Leesburg Pike (RTE 7), Falls Church, VA 22041

ADDITIONAL REFERENCES

(c) Defense Information Systems Agency, "Department of Defense Voice Networks Generic Switching Center Requirements (GSCR), Incorporated Change 1," 1 March 2005
(d) Joint Interoperability Test Command (JITC), "Defense Switched Network Generic Switch Test Plan (GSTP), Change 1, Revision 1" 1 June 2005
(e) Executive Office of the President, "Transition Planning for Internet Protocol version 6 (IPv6)," 2 August 2005
(f) JITC Memo, JTE, "Special Interoperability Test Certification of the K&R Custom Software Inc. Telecommunications Management System (TMS) with Software Release 5.2," 3 January 2007